

REMARKS

Claims 1-23, 25-28, 30-54, 56-59, and 61-67 remain for consideration. Claims 23, 28, 54, and 59 are amended to advance prosecution. Claims 24, 29, 55, and 60 are cancelled without prejudice or disclaimer. All remaining claims are thought to be allowable over the cited art.

The Office Action fails to establish that Claims 1-8, 11-22, 33, 35-53, 64, and 66-67 are unpatentable over U.S. Patent No. 6,917,594 to Feuerstraeter et al (hereinafter "Feuerstraeter") in view of U.S. Patent Publication No. 2001/0034209 to Tong et al (hereinafter "Tong") under 35 U.S.C. § 103(a).

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on Applicants' disclosure. (See MPEP § 2142).

Concerning the third criteria which must be met to establish *prima facie* obviousness of a claimed invention, the combination of Feuerstraeter and Tong must be shown to teach or suggest all of Applicants' claimed limitations. However, the Office Action admits that Feuerstraeter fails to teach at least "combining data from two or more portions of a data packet into a single portion, the single portion containing less data than the two or more portions combined to reduce an amount of data transmitted in the data transmission" as set forth in Applicants' Claim 1. Thus, the Office Action admits that Feuerstraeter fails to teach that: 1) the single portion is formed from the combination of two or more portions of a data packet within the transmitting entity; and 2) the single portion contains less data than the two or more portions combined.

As such, the Office Action combines Feuerstraeter with Tong to remedy Feuerstraeter's deficiencies. In particular, the Office Action suggests that Tong

combines bits of a first transmission to the bits of a second transmission to obtain a combined transmission block in order to reduce the number of bits transmitted. Tong, however, does not combine the bits prior to transmission. Rather, Tong seems to combine bits of first and second transmissions in the receiver after they have been transmitted.

In paragraph [0055], for example, Tong teaches that the transmitter sends the first transmission block and the receiver stores the first transmission block in case of a decoding error. In paragraph [0056], Tong teaches that the transmitter resends the first transmission block at a lower rate during a second transmission in case of a decoding error. In paragraph [0057], Tong teaches that the receiver adds the transmission blocks of the first and second transmissions in a weighted sum to generate the combination. Thus, Tong teaches that the combination of two or more portions of a data packet is formed in the receiver after transmission. Similar teachings may be found: in FIG. 4, steps 406 and 408, 412 and 414, 418 and 420; and in FIG. 6, steps 606, 610, 614, and 618, whereby Tong's combination is performed after the data is transmitted. Tong, therefore, does not teach the reduction in the amount of data transmitted due to the combination, since the combination occurs in the receiver after the transmission has occurred, which is in contradistinction to Applicants' Claim 1.

Furthermore, Tong's combination of two or more portions of a data packet into a single portion has not been shown to result in fewer bits. Instead, Tong's combination results in a concatenation of two or more portions of a data packet to form the combination. (See paragraph [0057]). Thus, the number of bits resulting in Tong's combination is equal to the number of bits contained in each portion, which is in further contradistinction to Applicants' Claim 1. Applicants respectfully submit, therefore, that Claim 1 patentably distinguishes over the combination of Feuerstraeter and Tong and is in condition for allowance. Independent Claims 15, 33, 37, 46, and 64 set forth similar limitations as those set forth in Claim 1. Applicants respectfully submit, therefore, that independent Claims 15, 33, 37, 46, and 64 are also in condition for allowance for at least the same reasons as discussed above in relation to Claim 1.

Dependent Claims 7-8, 11-14, 16-22, 35-36, 38-45, 47-53, and 66-67, which are dependent from independent Claims 1, 15, 33, 37, 46, and 64, are also rejected under 35 U.S.C. §103(a) as being unpatentable over the combination of Feuerstraeter and Tong. While Applicants do not acquiesce to any particular rejections to these dependent claims, it is believed that these rejections are now moot in view of the remarks made in connection with independent Claims 1, 15, 33, 37, 46, and 64. These dependent claims include all of the limitations of the base claim and any intervening claims, and recite additional features which further distinguish these claims from the cited references. Therefore, dependent Claims 7-8, 11-14, 16-22, 35-36, 38-45, 47-53, and 66-67 are also allowable over the combination of Feuerstraeter and Tong.

Claims 23-32 and 54-63 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Feuerstraeter in view of U.S. Patent No. 6,266,345 to Huang. The Office Action, however, fails to establish grounds for this rejection. Applicants have, nevertheless, amended Claims 23, 28, 54, and 59 in order to advance prosecution. The rejection is moot in regard to cancelled Claims 24, 29, 55, and 60.

Concerning the third criteria which must be met to establish *prima facie* obviousness of a claimed invention, the combination of Feuerstraeter and Huang must be shown to teach or suggest all of Applicants' claimed limitations. However, the Office Action admits that Feuerstraeter fails to teach at least "optionally allocating the data transmission across a plurality of data paths, each data path transmitting data at a bandwidth that is proportional to a ratio of the bandwidth of the data transmission to the determined number of transmission resources" as is set forth in Applicants' Claim 23.

As such, the Office Action combines Feuerstraeter with Huang to remedy Feuerstraeter's deficiencies. In particular, the Office Action suggests that Huang discloses a method for dynamically allocating a data transmission across a plurality of virtual channels. In determining the frequency that each virtual channel transmits data, however, Huang selects the lowest frequency that is defined by the transport standard of the transmission medium. (See column 8, lines 1-4). Huang further defines the transmission medium as "fiber optics, cable, twisted pair, microwave, or

other transmission media.” (See column 2, lines 40-42.) Huang further defines that “first system 110 operates to transmit data to the second system 120 via the transmission medium 150.” (See column 2, lines 37-40). Thus, Huang teaches that the frequency selected by each virtual channel for data transmission is based solely on the lowest frequency that is supported by the transmission medium. (See column 7 line 64 to column 8 line 4; and FIG. 6 step 602).

As amended, however, in determining the bandwidth of data transmission, Applicants’ Claim 23 sets forth at least one of “identifying transmission bandwidth capabilities of the transmitting entity” and “identifying reception bandwidth capabilities of the target entity.” Thus, the bandwidth of data transmission is determined based upon the capabilities of the transmitting and target entities, but does not determine the bandwidth of data transmission based upon the bandwidth capabilities of the transmission medium. Thus, it appears that the teachings of Huang are mutually exclusive to the limitations of Applicants’ Claim 23, since Huang bases the frequency of transmission on the transmission medium, while Applicants’ Claim 23 bases the frequency of transmission on the capabilities of the transmitting and target entities that are connected to the transmission medium. Applicants respectfully submit, therefore, that Claim 23 patentably distinguishes over the combination of Feuerstraeter and Huang and is in condition for allowance. Independent Claims 28, 54, and 59 have also been amended to set forth similar limitations as those set forth in Claim 23. Applicants respectfully submit, therefore, that independent Claims 28, 54, and 59 are also in condition for allowance for at least the same reasons as discussed above in relation to Claim 23.

Dependent Claims 24-27, 29-32, 55-58, and 60-63, which are dependent from independent Claims 23, 28, 54, and 59, respectively, are also rejected under 35 U.S.C. § 103(a) as being unpatentable over the combination of Feuerstraeter and Huang. While Applicants do not acquiesce to any particular rejections to these dependent claims, it is believed that these rejections are now moot in view of the amendments and remarks made in connection with independent Claims 23, 28, 54, and 59. These dependent claims include all of the limitations of the base claim and any intervening claims, and recite additional features which further distinguish these

claims from the cited references. Therefore, dependent Claims 24-27, 29-32, 55-58, and 60-63 are also allowable over the combination of Feuerstraeter and Huang.

The Office Action fails to establish that Claim 37 is anticipated under 35 U.S.C. § 102(e) by U.S. Patent No. 6,266,701 to Sridhar et al (hereinafter Sridhar) in view of Tong.

A single reference should be used in making a rejection under 35 U.S.C. § 102. Only in certain circumstances, i.e., 1) to prove the primary reference contains an enabled disclosure; 2) to explain the meaning of a term used in the primary reference; or 3) to show that a characteristic not disclosed in the reference is inherent, should a multiple reference rejection under 35 U.S.C. § 102 be made. M.P.E.P. § 2131.01. Notwithstanding the impropriety of the rejection, Applicants nevertheless respond in order to advance prosecution.

The Office Action correctly admits as to Sridhar's failure to teach at least "combining data from two or more portions of a data packet into a single portion, the single portion containing less data than the two or more portions combined to reduce an amount of data transmitted in the data transmission" as set forth in Applicants' Claim 37. As such, the Office Action combines Sridhar with Tong to remedy Sridhar's deficiencies. In particular, the Office Action suggests that Tong combines bits of a first transmission to the bits of a second transmission to obtain a combined transmission block in order to reduce the number of bits transmitted.

As discussed above, however, Tong does not combine the bits prior to transmission in order to "reduce the amount of data transmitted in the data transmission" as set forth in Applicants' Claim 37. Rather, Tong seems to combine bits of first and second transmissions in the receiver after they have been transmitted. Furthermore, as discussed above, Tong's combination of two or more portions of a data packet into a single portion has not been shown to result in fewer bits, which is in further contradistinction to Applicants' Claim 37. Applicants respectfully submit, therefore, that Claim 37 patentably distinguishes over the combination of Sridhar and Tong and is in condition for allowance.

The Office Action fails to establish that Claims 9-10, 26, 31, 57, and 62 are unpatentable over Feuerstraeter in view of Computer Networks by Andrew S. Tanenbaum (hereinafter "the article") under 35 U.S.C. § 103(a).

As discussed above, the Office Action admits as to the deficiencies of the teachings of Feuerstraeter in relation to independent Claims 1, 23, 28, 54, and 59. The article, however, has not been shown to remedy the deficiencies of Feuerstraeter with respect to independent Claims 1, 23, 28, 54, and 59. Claims 9-10, 26, 31, 57, and 62 depend upon independent Claims 1, 23, 28, 54, 59, respectively. As such, Feuerstraeter suffers from at least the same deficiencies as to Claims 9-10, 26, 31, 57, and 62, as admitted by the Office Action. Thus, Claims 9-10, 26, 31, 57, and 62 patentably distinguish over the combination of Feuerstraeter and the article and are in condition for allowance. Even if the Office Action were to combine Feuerstraeter and the article with Tong and/or Huang in an attempt to establish *prima facie* obviousness of Applicants' claimed invention, such an attempt would fail as discussed above in relation to the deficiencies associated with the combination of Feuerstraeter with Tong and/or Huang.

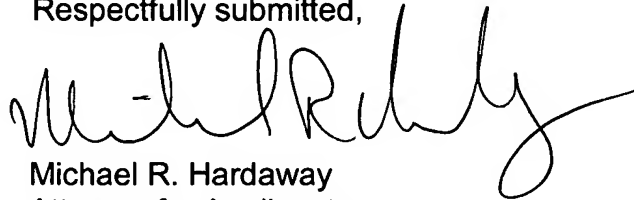
The Office Action fails to establish that Claims 34 and 65 are unpatentable over Feuerstraeter in view of U.S. Patent No. 6,618,360 to Scoville et al (hereinafter "Scoville") under 35 U.S.C. § 103(a).

As discussed above, the Office Action admits as to the deficiencies of the teachings of Feuerstraeter in relation to independent Claims 33 and 64. Scoville, however, has not been shown to remedy the deficiencies of Feuerstraeter with respect to independent Claims 33 and 64. Claims 34 and 65 depend upon independent Claims 33 and 64, respectively. As such, Feuerstraeter suffers from at least the same deficiencies as to Claims 34 and 65 as admitted by the Office Action. Thus, Claims 34 and 65 patentably distinguish over the combination of Feuerstraeter and Scoville and are in condition for allowance. Even if the Office Action were to combine Feuerstraeter and Scoville with Tong and/or Huang in an attempt to establish *prima facie* obviousness of Applicants' claimed invention, such an attempt would fail as discussed above in relation to the deficiencies associated with the combination of Feuerstraeter with Tong and/or Huang.

CONCLUSION

Reconsideration and a notice of allowance are respectfully requested in view of the amendments and remarks presented above. If the Examiner has any questions or concerns, a telephone call to the undersigned is invited.

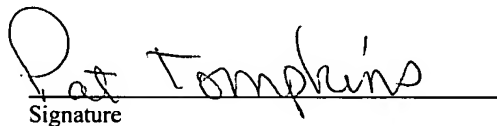
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I hereby certify that this correspondence is being deposited with the United States Postal Service as first-class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450, on January 22, 2007.

Pat Tompkins
Name


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